



# ECONOMIC TRENDS

## CHAPTER 5



### INTRODUCTION

Economic trends tell us something about the quality of life in a community and its surroundings. There are a large number of economic indicators in the form of statistics that can be collected and measured to illustrate economic well being of a community. This chapter will illustrate a few basic indicators using data collected from the U.S. Census Bureau. Trends are formed when comparing historical data with present data, and communities with other communities. The basic economic indicators in this chapter include: Labor Force, Economic Sectors and Household Income.

### LABOR FORCE PARTICIPATION

The labor force is composed of all individuals 16 years of age and older who are classified as either employed or unemployed. According to the United States Census Bureau's definitions, employed individuals are those "at work" or "with a job but not at work." Unemployed persons are those "looking for work" or "available to accept a job." Employers look for communities that have a strong and diverse labor force so that they can be assured that their will be an adequate number of employees in which to draw from. Besides having a number of persons

available to work, employers often need specific skill sets in order to match supply with demand needs. Generally, a strong and diverse labor force equals a stronger economy.

Table 5-1 shows the labor force participation rates of Troy and other selected areas in 2000. While Troy's unemployment rate (3.3%) was lower than areas such as Piqua (4.3%), Troy was higher than Tipp City (2.0%) and Miami County (3.1%). Troy was the same as the Miami Valley Region.

Table 5-2 shows the increase in the Troy female labor force between 1980 and 2000, a trend consistent with society in general. Working females had the greatest percentage increase (7.8%) between 1980 and 1990, and the greatest number increase (1,173) between 1990 and 2000. Conversely, there has been a slight decrease in the total number of males in the Troy labor force since 1980, dropping 3.7% between 1980 and 1990, and another 1.9% between 1990 and 2000. From 1980 to 2000, Troy's female labor force increased from 42.8% to 49.5% of the total. In aggregate, the entire labor force increased by 2,597 or 4.4% from 1980 to 2000.

	Total Persons 16+ Years of Age	In Civilian Labor Force	Percent Unemployed	Percent in Armed Forces
Troy	17,013	11,565	3.3%	0.1%
Miami Valley Region	741,911	481,743	3.3%	0.7%
Miami County	76,287	52,347	3.1%	0.0%
Piqua	15,897	10,641	4.3%	0.0%
Sidney	15,161	10,231	4.1%	0.0%
Tipp City	6,939	4,966	2.0%	0.1%

Table 5-1 Labor Force Participation Rates

	# of Males	# of Females	Total	% Male	% Female
2000	5,845	5,720	11,565	73.3%	63.0%
1990	5,202	4,547	9,749	75.2%	58.2%
1980	5,134	3,834	8,968	78.9%	50.4%

Table 5-2 Male-Female Ratio of Labor Force

## EDUCATIONAL ATTAINMENT

Educational attainment is often used by businesses to assess the type of labor force available in an area. For example, engineering and research establishments tend to gravitate toward areas with sufficient numbers of persons with higher levels of educational attainment in related areas. Table 5-3 illustrates the educational attainment of persons 25 years or older in Troy and other selected areas. In 2000, Troy had a lower percentage (81.4%) of high school graduates (including GED) than Tipp City (89.4%), Miami County (82.7%) and the Miami Valley Region (83.7%).

	Troy	Miami Valley Region	Miami County	Piqua	Sidney	Tipp City
2000 High School Graduates	81.4	83.7	82.7	74.6	78.1	89.4
2000 Bachelor's Degree or Higher	17.1	22.1	16.3	9.9	13.6	23.2
1990 High School Graduates	76.5	77.6	76.6	69.5	70.9	80.0
1990 Bachelor's Degree or Higher	16.9	19.1	14.1	9.0	14.3	13.1
1980 High School Graduates	66.9	68.9	66.9	60.5	N/A	69.6
1980 Bachelor's Degree or Higher	13.1	15.8	15.8	7.4	N/A	10.6
1970 High School Graduates	59.0	58.2	55.5	49.1	N/A	66.3
1970 Bachelor's Degree or Higher	8.8	11.0	6.9	5.5	N/A	9.7

Table 5-3 Educational Attainment Rates

Table 5-3 also shows percentages of college graduates with a bachelor's degree or higher. Similar to high school attainment, Troy (17.1%) had a lower percentage of individuals with at least a bachelor's degree than all jurisdictions except Piqua (9.9%), Sidney (13.6%), and Miami County (16.3%). Despite Troy's lower educational attainment percentages compared to other areas, the City has made significant increases in this area over the last 30 years. In 1970, Troy's percentage of high school graduates was only 59.0%, increasing to 66.9% in 1980, 76.5% in 1990 and 84.1% in 2000. Similarly, those individuals with at least a bachelor's degree increased from 8.8% in 1970, 13.1% in 1980, 16.9% in 1990, and 17.1% in 2000. This gain can be attributed in part to the new residential growth attracted to the community during that time period.

## INDUSTRY OF EMPLOYED RESIDENTS

As shown in Table 5-4, manufacturing has been the principle sector for employed residents of Troy, with just over 30% of the total jobs in 2000. In that respect, Troy's labor force is similar to that of Miami County. Education, health, and social services were the next largest group at approximately 19%. The retail trade sector was third at just over 10%, and the arts, educational, health and social services sector was fourth at approximately 8% of the total employed. Troy's higher number in Public Administration than Piqua, Sidney and Tipp City can be attributed for being the County Seat and housing the Miami County offices.

Troy's distribution of industry is comparable to cities of similar size; i.e., Piqua which relies on manufacturing, retail and various public and community services as key employers within the community. These cities differ from larger ones such as Dayton and Columbus, which typically have a higher percentage of construction and entertainment/recreational jobs. Public Administration percent total is higher for Troy (5.1%) than Piqua (2.7%), Tipp City (3.0%) and Sidney (2.6%). This higher percent total in Troy can be attributed to the fact that Troy is the County seat for Miami County and therefore hold most of the county offices.

	Troy	Miami Valley Region	Miami County	Piqua	Sidney	Tipp City
	Total	Total	Total	Total	Total	Total
Employed Civil Population 16 and Over	11,180 100%	451,820 100%	50,739 100%	10,186 100%	9,800 100%	4,886 100%
Agriculture, Forestry, etc.	11 0.1%	2,428 0.5%	630 1.2%	23 0.2%	52 0.5%	0 0.0%
Construction	496 4.4%	24,578 5.4%	2,977 5.9%	407 4.0%	415 4.2%	186 3.8%
Manufacturing	3,486 31.2%	86,493 19.1%	14,910 29.4%	3,257 32.0%	4,290 43.8%	1,142 23.4%
Wholesale Trade	298 2.7%	14,375 3.2%	1,872 3.7%	446 4.4%	335 3.4%	250 5.1%
Retail Trade	1,201 10.7%	54,334 12.0%	5,926 11.7%	1,465 14.4%	585 6.0%	641 13.1%
Transportation, etc.	500 4.5%	21,550 4.8%	2,640 5.2%	378 5.2%	237 2.4%	363 7.4%
Finance, etc.	489 4.4%	22,771 5.0%	2,023 4.0%	465 4.6%	366 3.7%	174 3.6%
Professional, etc.	649 5.8%	40,549 9.0%	3,416 6.7%	566 5.6%	555 5.7%	491 10.0%
Educational, etc.	2,038 18.2%	93,785 20.8%	8,040 15.8%	1,339 13.1%	1,381 13.9%	761 15.6%
Arts, etc.	874 7.8%	33,846 7.5%	3,437 6.8%	781 7.7%	846 8.6%	374 7.7%
Other Services	379 3.4%	20,014 4.4%	2,247 4.4%	599 5.9%	354 3.6%	254 5.2%
Public Administration	575 5.1%	26,845 5.9%	1,910 3.8%	271 2.7%	256 2.6%	148 3.0%

Table 5-4 Distribution of Industries

## OCCUPATION OF EMPLOYED RESIDENTS

Several factors affect the occupations of a given population. They include the demand for specific disciplines in the overall metropolitan employment market, the need for industries to support the basic manufacturing activities of that overall market and the community's attractiveness as a place to live. As shown in Table 5-5, management was the largest occupational category in 2000 with approximately 31% of the employed residents. Production, transportation, and material moving was second with just over 25%, sales and office was third with just under 25%, and service was fourth at approximately 14%.

Troy's occupational distribution is similar to all of the cities compared except Piqua, which shows lower levels of management occupations and higher levels of production occupations.

## COMMUTING PATTERNS

Table 5-6 indicates the counties where residents of Troy worked, as well as counties Troy workers came from in 2000. Just under two-thirds of Troy's residents worked in Miami County. Of the remainder, almost 14% worked in Montgomery County to the immediate south; the remainder worked in Shelby (2.0%), Greene (1.0%), Clark (1.0%) and other areas (19%). In addition, just under half of the workers in Troy lived in Miami County. Almost 8% came from Miami County, others from Shelby (1.0%), Darke (0.8%), Warren (0.5%) and Greene (0.5%). The balance of workers (42.2%) came from other areas. Both statistics demonstrate the abundance and variety of jobs in Troy and Miami County.

	Troy	Miami Valley Region	Miami County	Piqua	Sidney	Tipp City
	Total	Total	Total	Total	Total	Total
Employed Civil Population 16 and Over	11,180 100%	45,1820 100%	50,739 100%	10,186 100%	9,800 100%	4,886 100%
Management	3,492 31.0%	148,360 32.9%	14,752 29.1%	1,954 19.2%	2,509 25.6%	1,690 34.6%
Service	1,505 13.5%	65,954 14.6%	6,510 12.8%	1,542 15.1%	1,418 14.5%	545 11.2%
Sales & Office	2,756 24.7%	118,697 26.3%	12,926 25.5%	2,693 26.4%	1,880 19.2%	1,373 28.1%
Farming, Fishing	52 0.5%	1,106 0.2%	283 0.6%	31 0.3%	29 8.3%	8 0.2%
Construction	566 5.1%	35,828 7.9%	4,064 8.0%	847 8.3%	790 8.1%	305 6.2%
Production	2,809 25.1%	81,875 18.1%	12,204 24.1%	3,119 30.6%	364 33.3%	965 19.8%

Table 5-5 Employment by Occupation

Top 5 counties where <u>Residents</u> of Troy Work.		
County	No. Workers	% of total workers
Miami	5,719	63.3%
Montgomery	1,232	13.6%
Shelby	181	2.0%
Greene	90	1.0%
Clark	86	1.0%
Balance	1,726	19.1%
Total Workers	9,034	100.0%

Top 6 counties from where <u>Workers</u> in Troy originate.		
County	No. Workers	% of total workers
Miami	6,078	47.4%
Montgomery	961	7.5%
Shelby	126	1.0%
Darke	105	0.8%
Warren	69	0.5%
Greene	68	0.5%
Balance	5,410	42.2%
Total Workers	12,817	100.0%

Table 5-6 Counties Where Residents Work and Workers Reside

Table 5-7 shows the job commuting patterns by percentage of Troy residents ages 16 and over compared to other areas. Troy's average travel time in 2000 (approximately 17 minutes) was the same as Piqua, but less than all of the other jurisdictions. Shorter commute times can be explained by the greater availability of jobs proximate to home, as well as road capacity and design. Almost 90% of Troy's commuters drove alone to work, which is similar to all of the other areas except the Miami Valley Region and Piqua. The decision to drive alone, car-pool, use public transportation, or walk to work depends on a number of physical and demographic factors. In larger, denser urban areas such as

Dayton, individuals are more likely to car-pool and use public transportation to save time due to congestion and limited vehicle parking, especially downtown and in surrounding commercial areas. In contrast, the demand for car-pooling and public transportation is less in areas such as Troy and Tipp City, which provide better vehicular access and more parking options. The decision whether or not to drive alone to work is also based on factors such as income and household characteristics, i.e. family size and labor force participation. Physical and demographic factors can also impact the percentage of people who walk compared to those that commute by vehicle. Pedestrian traffic is impacted by common factors such as the availability of jobs proximate to residential areas and income level. Commuting is also influenced by personal beliefs such as concern (or lack thereof) for the environment.

	Mean travel time to work %	Drove alone %	Car-pool %	Public Transport %	Walked %	Other %	Worked at Home %
Troy	17.2%	88.0%	7.8%	0.6%	1.6%	1.2%	0.8%
Miami Valley Region	21.0%	84.0%	8.9%	1.8%	2.4%	0.7%	2.3%
Miami County	20.1%	86.4%	8.0%	0.5%	1.6%	0.7%	2.7%
Piqua	17.2%	82.1%	11.0%	1.3%	2.5%	0.9%	2.2%
Sidney	14.3%	86.0%	8.6%	0.0%	2.0%	0.0%	2.3%
Tipp City	21.0%	91.1%	5.1%	0.1%	1.6%	0.8%	1.4%

Table 5-7 Job Commuting Patterns

### RELATIVE IMPORTANCE OF SELECTED ECONOMIC SECTORS

Table 5-8 shows the importance of the major sectors of the Troy economy which include manufacturing, wholesale trade, retail trade, and selected services (education, health care, the arts, etc). Manufacturing and retail trade were the most significant of the four selected sectors from 1972 to 1992. Wholesale trade and selected service figures were not available for the period 1992 to 1997; however, this chart shows that manufacturing has remained the most dominant part of the local economy.

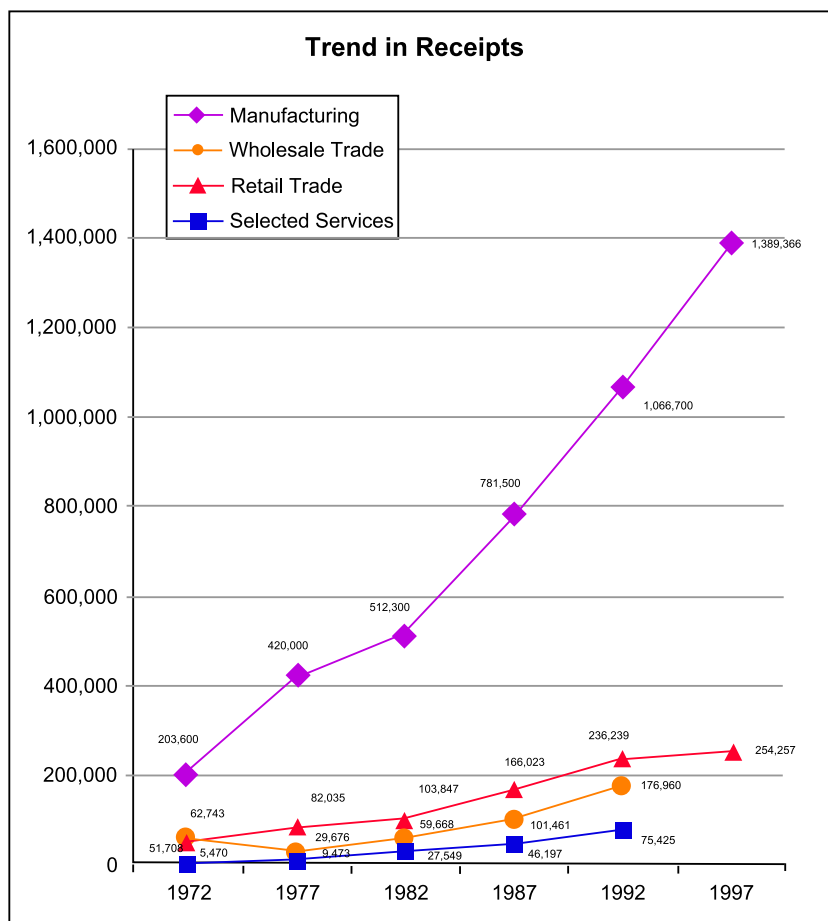


Table 5-8 Major Sectors of Troy's Economy

Table 5-9 shows that Troy's share of the Miami County manufacturing base increased moderately (14%) from 1972 to 1982 and dropped slightly (2%) from 1992 to 1997. The selected services sector decreased 15% during the same period. The retail trade sector decreased 2% from 1972 to 1997. Wholesale trade has been less significant in Troy because of the tendency for large wholesalers to locate in more populous counties. That trend, however, may reverse in the future as the Dayton urbanized area spreads northward and additional distribution centers locate near the Dayton International Airport and close to the Interstate Route 70/75 interchange.

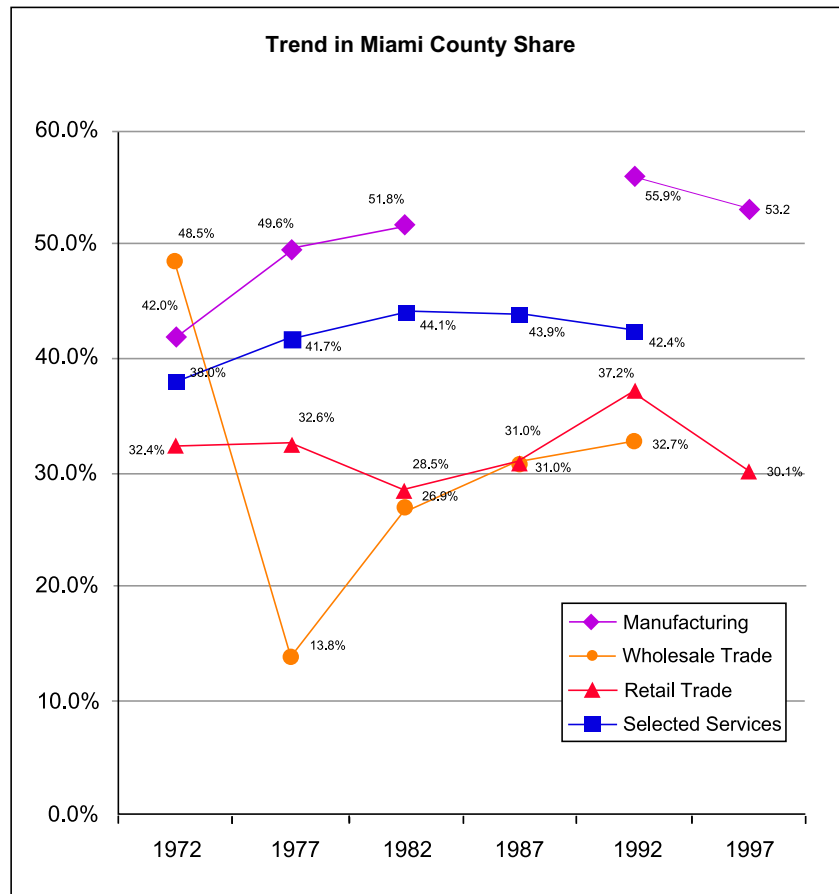


Table 5-9 Shares of the Miami County Economy

## HOUSEHOLD INCOME DISTRIBUTION

Income is linked to many other economic factors such as housing, labor force profile, industrial mix, access to employment areas, and ability to attract commercial and service enterprises. As illustrated in Table 5-10, there were more households in Troy with an income between \$50,000 and \$74,999 than any other city. The higher

number and percentage may be due to Troy's diverse housing and economic base, as well as being in a central location of the Dayton MSA. Table 5-10 indicates that 40% of all household incomes generally fall between the "less than \$10,000-\$34,999" range, another 40% between "\$35,000-\$74,999" range, and 20% of the household incomes falling between "\$75,000-\$200,000 plus" range.

	Troy	MSA	Miami County	Piqua	Sidney	Tipp City
	Total	Total	Total	Total	Total	Total
Less than \$10,000	643 7.2%	33,919 8.9%	2,337 6.1%	832 10.0%	695 8.7%	183 5.0%
\$10,000 to \$14,999	625 7.0%	22,100 5.8%	2,243 5.8%	616 7.4%	465 5.8%	236 6.5%
\$15,000 to \$24,999	1,365 15.2%	50,479 13.3%	4,862 12.6%	1,402 16.9%	1,160 14.5%	378 10.4%
\$25,000 to \$34,999	1,376 15.3%	51,348 13.5%	5,329 13.8%	1,208 14.6%	1,265 15.8%	437 12.0%
\$35,000 to \$49,999	1,682 18.7%	65,872 17.3%	7,196 18.7%	1,683 20.3%	1,628 20.3%	624 17.1%
\$50,000 to \$74,999	1,885 21.0%	78,040 20.6%	8,727 22.7%	1,594 19.2%	1,544 19.3%	750 20.6%
\$75,000 to \$99,999	830 9.2%	39,837 10.5%	4,171 10.8%	500 6.0%	700 8.7%	525 14.4%
\$100,000 to \$149,999	413 4.6%	26,520 7.0%	2,449 6.4%	254 3.1%	388 4.8%	358 9.8%
\$150,000 to \$199,999	87 1.0%	5,820 1.5%	589 1.5%	92 1.1%	62 0.8%	88 2.4%
\$200,000 +	83 0.9%	5,785 1.5%	622 1.6%	105 1.3%	95 1.2%	66 1.8%

Table 5-10 Household Income Distribution

## HOUSEHOLD INCOME CHANGE

Income change, whether in growth or decline, is a main indicator of a community's economic health. Table 5-11 compares the median household income change from 1989 to 1999 for selected areas. All areas increased their median household income during this time. Tipp City showed both the greatest dollar amount increase (\$18,383) and percentage increase (60.7%). Troy's \$10,499 increase or 36.2% income change were similar to that of the Miami Valley Region. Miami County, Piqua and Sidney all fared slightly better than Troy with higher percentage increases.

	1990 Census Median Income	2000 Census Median Income	Percent Change
Troy	\$29,032	\$39,531	36.2%
Miami Valley Region	\$30,472	\$41,550	36.4%
Miami County	\$31,425	\$44,109	40.4%
Piqua	\$25,026	\$35,681	42.6%
Sidney	\$26,943	\$38,663	43.5%
Tipp City	\$30,292	\$48,675	60.7%

Table 5-11 Household Income Change 1990-2000

## HOUSEHOLD EARNINGS BY TYPE

Table 5-12, on the next page, illustrates 1999 household earnings by type. The type and amount of earnings within a jurisdiction is important because it is a strong indication of the strength of the local economy, as well as housing and social service needs. Troy's median earnings were ranked fourth lowest for men and third lowest for women of the 6 areas surveyed. In addition, Troy's mean earnings were lower than all of the areas except Piqua and Sidney. Median retirement income was lower than all but Tipp City and Sidney. Troy's mean Social Security income was greater than all of the areas except Tipp City. However, its mean Supplemental Security Income (SSI) was lower than all of the areas. Similarly, its mean public assistance income was less than all of the areas.

	Troy	Miami Valley Region	Miami County	Piqua	Sidney	Tipp City
	Total	Total	Total	Total	Total	Total
Total Households	8,989	379,720	38,525	8,286	8,002	3,645
With Earnings	7,345	302,339	31,839	6,680	6,455	3,061
With Social Security Income	2,351	98,921	10,311	2,470	2,179	850
Mean Social Security Income (\$)	11,721	10,912	11,670	11,624	11,524	12,109
With Supplemental Social Income	280	15,633	1,155	307	378	70
Mean Supplemental Security Income (\$)	5,845	6,472	6,731	6,661	6,568	5,881
With Public Assistance Income	191	10,792	657	248	186	30
Mean public Assistance Income (\$)	1,582	2,468	2,421	1,632	2,598	2,473
With Retirement Income	1,684	84,581	7,918	1,564	1,388	737
Mean Retirement Income (\$)	14,719	19,935	15,905	17,130	12,614	13,831
Mean Earnings (\$)	48,421	51,981	53,284	42,460	48,330	57,791
Median Earnings (\$) male full time, yr.-round	35,819	39,102	37,357	31,808	35,127	44,917
Median Earnings (\$) female full time, yr.-round	25,536	26,788	25,493	22,241	22,497	27,973

Table 5-12 Household Earnings by Type